THE JOURNAL OF NAVIGATION (2004), **57**, 161–165. © The Royal Institute of Navigation
Printed in the United Kingdom

Forum

DOI: 10.1017/S0373463303212613

The Dover Strait Traffic Separation Scheme

A. N. Cockcroft

KEY WORDS

1. Ferries Crossing. 2. Collisions.

The article ''The Hazards of Navigating the Dover Strait (Pas-de-Calais) Traffic Separation Scheme'' (Squire, 2003) draws attention to some problems relating to the Dover Strait TSS. Some of the statistics given in the article appear to be in error.

The author suggests that ferry traffic crossing the Dover Strait may have increased by as much as 71% since 1972. This is based on the assumption that the survey by NPL in 1972 showed 70 ferries crossing each day in both directions whereas figures for March 2001 indicate about 120 ferry crossings for both directions. The results of the 1972 survey were given in the *Journal of Navigation* (Johnson, 1973). The author of that paper does make reference to crossings totalling about 70 per day in both directions but it is clear from the corresponding diagrams that the actual number was 70 per day in each direction. The Anglo-French survey of Dover Strait traffic in 1977 showed 187 crossing movements per day, about 80% ferries (NMI Report R42). The available evidence does not, therefore, indicate any significant increase in crossing traffic since the 1972 and 1977 surveys.

Section 4 of the article relates to collisions and hazardous incidents. The author refers to a study by the International Association of Institutes of Navigation which showed that between 1956 and 1960 there were 60 collisions in the Dover Strait while in the twenty-year period since the introduction of the TSS there had been only 16. In fact table 4 of the IAIN paper (based on my own research) shows 16 collisions in the Dover Strait area for a period of only 5 years, 1976–80 inclusive. Apparently 13 collisions have occurred in the 3-year period 1999–2001. Available data does not show a significant increase in the area since the early years of traffic separation but the year 2001 appears to have an unusually large number.

The paper, produced by the Sea Safety Group, identifies some of the main problems relating to the Dover Strait Traffic Separation Scheme and puts forward some solutions suggested by mariners. The paper should provide a good basis for discussion on effective measures that can be taken to bring about improvement.

https://doi.org/10.1017/S0373463303212613 Published online by Cambridge University Press

DOI: 10.1017/S037346330322261X

Unsafe at any Speed (2)

R. G. Prince

KEY WORDS

1. Colregs.

1. INTRODUCTION. The solution to the ambiguities in the Colregs currently under discussion (Manley[1], Cooper[2]) is contained in a paper I submitted to the Journal six years ago under (with reference to the Colregs) the above title. Unfortunately it was just too late to be published. To fall into shape the Colregs need three definitions, none of which is made by the Colregs themselves. I will examine each in turn.

2. GIVE WAY. The first is:

> '*give way to*' under Rule 16 means "*get out of the way of*". If as appears on many occasions to be the generally accepted view, '*well clear*' under Rule 16, '*a safe distance*' under Rule 8(d), and '*avoiding a close-quarters' situation*' under Rule 8(c) mean 1/2 mile, this equates to "*get at least 1/2 mile out of the way of*".

However it should be noted that, using the RYA's statement[3] (with particular reference to TSS's, but with no apparent reason so to restrict it) "*if the speed drops below about 3 kn it is time to start the engine and motor clear*" and as on many occasions in my experience if such a yacht is obliged to get out of the way of a motor vessel which she spots coming straight towards her say 3 miles off, unless the motor vessel is travelling at less than 18 kn it is impossible for the yacht to comply with the requirement.

This appears from Figure 1, where vessel B at speed V_B is the give-way vessel, and the intention is to avoid vessel A at constant velocity V_A by the widest-possible margin AC: by relative velocities and similar triangles it is apparent that $AC/AB = 1/6 = V_B/V_A$. Thus for $V_B = 3$ kn, V_A max. $= 18$ kn. It is also apparent that the best course to steer is $\sin^{-1} 1/6 \approx 10^\circ$ away from the normal to the original line between them. Similarly if any vessel may on any occasion be obliged to give way to a WIG craft travelling at 200 kn, unless she is able and willing to maintain a speed of 33 kn she is not lawfully under the Colregs allowed to put to sea at all! Thus a vessel may be obliged to travel simultaneously at both under 18 kn and over 33 kn: hence the quite literal title of this paper.

The 'way' of a vessel is thus represented by a corridor 1 mile wide, and it should be noted that for a vessel at 3 kn to cross the way of another vessel takes 20 minutes! Thus if vessels with the right not to have their passage impeded are to be relieved of the duty to give way to crossing vessels, then the former are obliged to leave gaps of at least 20 minutes between themselves and the vessel in front: which would they prefer? The requirement to give way thus becomes one of not requiring the stand-on vessel to alter either course or speed.

https://doi.org/10.1017/S0373463303212613 Published online by Cambridge University Press

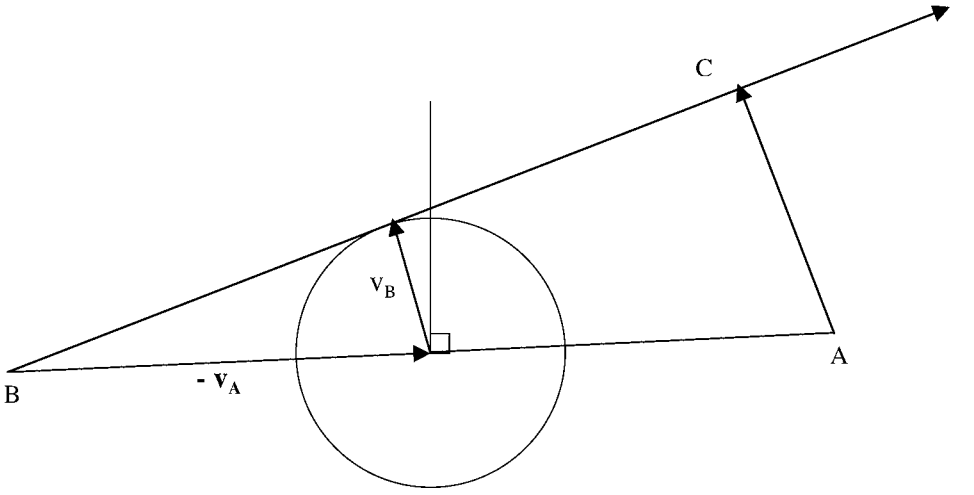


Figure 1. Getting out of the way.

3. NOT IMPEDE PASSAGE. The second area requiring examination is:

> '*not impede the* (*safe*) *passage of*' is not the same as '*not impede*'. Thus a car may well be impeded by a lorry in front, but if the car can overtake then its passage is not impeded: like the priest and the Levite, it is free to "*pass by on the other side*"[4].

'*Not impede* (*safe*) *passage*' is defined by Rule 8(f)(i) to mean "*take early action to allow sufficient sea-room for the safe passage of the other vessel*". '*Sea room*' is used in Rule 8(c) to mean "*room to alter course*" (in that case, as one means of giving way).

The only vessel without a passage is the Flying Dutchman, doomed forever to roam the oceans. A vessel's passage is from port A to port B, and is likely to be made up of a series of different 'ways', thus the requirement not to impede the (safe) passage of another vessel is one not to require the latter to reduce speed, even though she may have to change course so as not to do so.

It is not carte blanche for the latter to blunder on regardless of any vessels crossing from port, which is my invariable experience as a commercially-endorsed yacht-master and instructor of crossing TSS's; moreover it is certainly not a requirement to stand-on against such vessels. A vessel's passage is not altered by calls at intermediate ports, anchoring to wait for tides etc, and "ships that pass in the night" are just other incidents of the passage.

Thus where one vessel B has the duty not to impede passage, and the other vessel A the duty to give way, B is obliged so far as practicable to ensure that A can give way by helm action alone, without having to reduce speed. Of course where say a line of vessels with the duty not to impede passage is crossing a TSS, it may not always be possible for any particular one to ensure that a TSS vessel can give way without slowing down or stopping in accordance with Rule 8(e).

The epitome is Rule 18(d)(i), which requires most vessels to "*avoid impeding the safe passage of a vessel constrained by her draft, exhibiting the signals in Rule 28*". Such a vessel may well have only one 'way' available to her, so the requirement is in this instance identical to one to give way. Such a vessel should not in any event be travelling at 18 kn!

https://doi.org/10.1017/S0373463303212613 Published online by Cambridge University Press

This interpretation reconciles the otherwise-irreconcilable Rules 8(f)(ii) & (iii) (which, whatever casuistry may be employed otherwise, on the face of it flatly contradict each other), and is confirmed by Rule 10(a), which expressly '*does not relieve any vessel of her obligation under any other rule*'. Rule 18 abrogates the give-way obligation only where it is strictly "required" by Rules 9, 10, (& 13), which can hardly be the case where the give-way vessel can give way by change of course alone (as in overtaking under Rule 13), and there can surely never be a requirement to run-down another vessel even when she can not!

This is in accordance with the view of Farwell[5], who states in relation to two vessels going in opposite directions on a waterway with a pronounced current "*the responsibility for proposing the manner and place of passage* ***rests on the*** *vessel down-bound with following current*". The alternative view as expressed by Marsden[6] and Cockcroft & Lameier[7] is that '*not impede the passage of*' was intended by the drafters of the Colregs to be complementary to the '*conduct of vessels in sight of one another*'; to '*avoid the development of the risk of collision*' in the first place.

It should firstly be noted that under the rules of statutory interpretation (which govern the Colregs), the intention of the 'legislature' is virtually irrelevant. Further, this alternative view is incompatible with Rule 7(d)(i), which deems a risk of collision to exist whenever an approaching vessel's bearing does not change, however slowly either vessel is going and however far apart they are.

It should be particularly noted that this rule is a rule of Part B Section 1, and thus applies in any condition of visibility: thus there is no requirement that either vessel should be aware that the compass bearing is not appreciably changing (such as in fog or over the horizon from each other). Though it ought to be, would anyone say that the risk of collision is less in fog just because the vessels can't see each other?

4. NON-DISPLACEMENT VESSELS. Indeed, the alternative view is more compatible with "*keep well clear of all vessels and avoid impeding their navigation*", as applied to seaplanes by Rule 18(e). Hydrofoils and WIG craft (but not hovercraft, which are the 'helicopters of the sea') clearly plane upon the sea just as aeroplanes plane upon the air, so if the term "seaplane" (which includes "aircraft designed to manoeuvre on the water", but which is not actually defined) is the third definition and defined to be "*all vessels in non-displacement mode*"; and '*not impede navigation*' to be "*avoid by at least 3 miles*", a partial solution to the problem of HSC's is already contained in the Colregs as they now stand. If this means that such craft can never plane in congested seaways such as the Dover/Calais Strait, then the rejoicing should be universal, particularly among the passengers of such vessels (including myself!).

5. CONCLUSION. These three definitions coupled with the idea (which was part of my original paper and which was kindly referred to by Professor Kemp[8]) for a requirement for a vessel travelling twice as fast as another to take action to avoid collision (and which for the sake of argument I have called priority action, giving rise to an obligation to give priority), convert the Colregs into a coherent and comprehensive system.

https://doi.org/10.1017/S0373463303212613 Published online by Cambridge University Press

Article 1(a) of the IMO Convention requires it to "*encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety* (*and*) *efficiency of navigation*": it is to be hoped that if in giving priority to efficiency over safety it like Pontius Pilate continues to wash its hands of the situation, it does not likewise end up with blood on them (especially mine!).

REFERENCES

1. Manly, P. (2002). Collision regulations. This *Journal* **55**, 146.
2. Cooper, R. W. (2001). Collision regulations. This *Journal* **54**, 479.
3. IRPCS, G2/90, 14.
4. Luke 10:31.
5. Farwell, R. F. (1994). *Farwell's Rules of the Nautical Road.* Naval Institute Press, 7th Ed, 149.
6. Marsden, R. G. (1998). *Collisions at Sea*. Sweet & Maxwell (UK), 12th Ed, para 6-78.
7. Cockroft, A. N. (1996). *Guide to the Collision Avoidance Rules*, 5th Ed, 58.
8. Kemp, J. (2002). Collision regulations. This *Journal* **55**, 145.

https://doi.org/10.1017/S0373463303212613 Published online by Cambridge University Press